

Exhibit 17  
Joint Factual Statement Excerpt  
May 14, 2015

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MAY 14 2015  
JULIE RICHARDS JOHNSTON, CLERK  
US DISTRICT COURT, EDNC  
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JOINT FACTUAL STATEMENT

## INTRODUCTION

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United States v. Duke Energy Business Services, LLC, and Duke Energy Progress, Inc., No. 5:15-CR-62-H;

United States v. Duke Energy Business Services, LLC, Duke Energy Carolinas, LLC, and Duke Energy Progress, Inc., No. 5:15-CR-67-H; and

United States v. Duke Energy Business Services, LLC, Duke Energy Carolinas, LLC, and Duke Energy Progress, Inc., No. 5:15-CR-68-H.

The charges from the Middle District of North Carolina and the Western District of North Carolina have been transferred to the Eastern District of North Carolina for purposes of plea pursuant to Fed. R. Crim. P. 20. The Defendants' guilty pleas are to be entered pursuant to the Plea Agreements signed and dated this same day.

## **II. OVERVIEW AND BACKGROUND**

### Dan River Steam Station - Middle District of North Carolina

1. From at least January 1, 2012, DUKE ENERGY CAROLINAS and DUKE ENERGY BUSINESS SERVICES failed to properly maintain and inspect the two stormwater pipes underneath the primary coal ash basin at the Dan River Steam Station in Eden, North Carolina. On February 2, 2014, one of those pipes failed, resulting in the discharge of approximately 27 million gallons of coal ash wastewater and between 30,000 and 39,000 tons of coal ash into the Dan River. The coal ash travelled more than 62 miles downriver to the Kerr Lake Reservoir on the border of

#### BROMIDE IMPACTS FROM FGD SYSTEMS

162. As described above, DUKE ENERGY CAROLINAS owns and operates Belews Creek Steam Station ("BELEWS") in Stokes County, North Carolina, and Cliffside Steam Station ("CLIFFSIDE") in Rutherford and Cleveland Counties, North Carolina.

163. As part of its efforts to comply with the Clean Air Act and North Carolina Clean Smokestacks Act, DUKE ENERGY CAROLINAS installed Flue Gas Desulfurization ("FGD") "scrubbers" to significantly reduce or eliminate certain air pollutants, such as sulfur dioxide and nitrogen oxide at several coal-fired facilities. FGD scrubbers isolate certain pollutants from coal combustion emissions into the air and ultimately divert those pollutants, including bromides, into a gypsum slurry that is eventually routed to the facility's coal ash basins. At times, portions of the slurry may be diverted for reuse in products such as wall board.

164. FGD installation was completed and the scrubbers at BELEWS became fully operational at the end of 2008.

165. When bromide comes into contact with chlorine-based water treatment systems, it can contribute to the formation of compounds known as trihalomethanes ("THMs"). There are no general federal or state water limits for the discharge of bromides to surface water. However, there are state and federal limits for total trihalomethanes ("total THMs") under the Safe



Drinking Water Act. If ingested in excess of the regulatory limits over many years, THMs may cause adverse health effects, including cancer.

#### DISCHARGE OF BROMIDES AT BELEWS

166. Beginning in 2008 or 2009, the City of Eden ("Eden"), downstream from BELEWS, noted an increase in total THMs in its drinking water.

167. Prior to the installation of the FGD scrubbers, DUKE ENERGY CAROLINAS reported to DENR in its BELEWS NPDES permit applications that bromide occurred in its waste stream at a level too low to detect. When BELEWS applied for a NPDES permit modification in 2009, it made no new disclosures concerning bromide levels because the modification did not relate to bromide and there were no federal or state limitations for bromide discharge.

168. DUKE ENERGY CAROLINAS tested for bromides, as well a number of other potential pollutants, at BELEWS in 2008-2009 to evaluate the effects of the FGD wastewater treatment system. Those test results showed that bromides were discharged from BELEWS into the Dan River. This did not violate the NDPEs permit for the facility.

169. In consultation with an outside contractor, in January 2011, Eden determined that an increase in bromides contributed

to the increase in total THMs it had witnessed beginning in 2008-2009.

170. In early 2011, Eden tested the water entering its water treatment facility from the Dan River and performed water tests upstream to determine the source of the bromides.

171. On May 10, 2011, Eden notified DUKE ENERGY CAROLINAS that it was having difficulty with increasing levels of total THMs in its treated drinking water and requested DUKE ENERGY CAROLINAS' bromide sampling data from the outflow of BELEWS. An impending reduction in the threshold for total THMs (required by an EPA rule promulgated under the Safe Drinking Water Act) triggered Eden's particular interest in the pollutant, especially given that Eden was at the upper limit of the then-permissible total THM range.

172. As a result of the water testing, Eden identified the source of the increased bromides as BELEWS, which discharges into the Dan River. Eden shared this information and its test results with DUKE ENERGY CAROLINAS on June 7, 2011.

173. Shortly thereafter, DUKE ENERGY CAROLINAS and DUKE ENERGY BUSINESS SERVICES internally agreed that the increased bromides very likely came from BELEWS and, combined with a number of other factors, had likely caused the THM increase at Eden. DUKE ENERGY CAROLINAS and DUKE ENERGY BUSINESS SERVICES

also agreed internally that the increased bromides were likely the result of the FGD scrubber system.

174. In mid-June 2011, DUKE ENERGY CAROLINAS contacted the Town of Madison ("Madison"), which also draws water from the Dan River and processes that water for drinking and which is closer to BELEWS than Eden. DUKE ENERGY CAROLINAS informed Madison of its findings and Madison asked to be part of the discussions with Eden about reducing bromide levels. DUKE ENERGY CAROLINAS and DUKE ENERGY BUSINESS SERVICES employees met with Eden and Madison several times between June 2011 and April 2012 to discuss reducing total THMs in their drinking water.

175. DUKE ENERGY CAROLINAS informed DENR of the increase in bromide levels in its effluent when it filed its NPDES permit renewal application for BELEWS on August 29, 2011. In the application, DUKE ENERGY CAROLINAS listed bromide as a pollutant present in outfalls 001 (into Belews Lake) and 003 (into Dan River). The largest concentration of bromide was listed as 6.9 mg/L from Outfall 003, which translates to 6.9 parts per million (ppm) or 6907 parts per billion (ppb). This bromide result appears to have been taken from a sample of water collected in January 2011 and analyzed after Eden had brought the issue to DUKE ENERGY CAROLINAS' attention.



176. At the time DUKE ENERGY CAROLINAS filed its NPDES permit renewal application for BELEWS, none of the previous permits had placed any restrictions or limits on bromides.

177. In mid-October 2011, Eden informed DUKE ENERGY CAROLINAS that Madison had violated its limit on total THMs. DUKE ENERGY CAROLINAS was also informed that Henry County, Virginia, (which purchases Eden's water) violated its total THM limit. Dan River Water (another purchaser of Eden's water) also violated its total THM limit.

178. On November 16, 2011, DENR's Winston-Salem Regional Office held a meeting with DUKE ENERGY CAROLINAS, DUKE ENERGY BUSINESS SERVICES, Eden, and Madison regarding the bromide issue. All participants agreed that the total THM problem was caused by bromides entering the Dan River from BELEWS. DUKE ENERGY CAROLINAS was not aware of the relationship between bromides and THMs until Eden brought the matter to DUKE ENERGY CAROLINAS' attention in 2011.

179. Since the November 2011 meeting, DUKE ENERGY CAROLINAS has entered into written agreements with Eden and Madison to assist them with a portion of the costs of modifying and modernizing their water treatment systems.

#### DISCHARGE OF BROMIDES AT CLIFFSIDE

180. Beginning at about the time DUKE ENERGY CAROLINAS responded to Eden's initial complaints regarding the bromide



discharge at BELEWS, DUKE ENERGY CAROLINAS conducted an initiative to monitor bromide discharge at other locations employing FGD scrubbers.

181. As a result of this initiative, in or about early August 2011, DUKE ENERGY CAROLINAS also internally identified the CLIFFSIDE facility in western North Carolina as one that could pose a potential THM problem in light of the relatively shallow river (the Broad River) into which CLIFFSIDE discharged and the presence of relatively close downstream facilities that drew drinking water from the Broad River.

182. The last CLIFFSIDE NPDES permit was issued in January 2011 and did not reference bromide.

183. DUKE ENERGY CAROLINAS AND DUKE ENERGY BUSINESS SERVICES informed neither downstream communities nor DENR regarding this discharge from CLIFFSIDE. As of the date of this joint factual statement, the parties are not aware of a community downstream from CLIFFSIDE that has reported elevated levels of total THMs due to an increase in bromide discharge from the facility, but acknowledge the possibility that one or more communities may have been affected.

184. In 2013, DUKE ENERGY CAROLINAS installed a spray dry absorber for one of the two FGD scrubber units at the CLIFFSIDE facility which reduced the bromide discharge from CLIFFSIDE.

The other FGD scrubber unit at CLIFFSIDE operates only intermittently.

#### SUTTON FACILITY

185. DUKE ENERGY PROGRESS owns and operates the L.V. Sutton Steam Station ("SUTTON") in New Hanover County, North Carolina. SUTTON houses two coal ash basins, one constructed in 1971 and one constructed in 1984.

186. Located near SUTTON is the community of Flemington. Flemington's water supply has a history of water-quality problems. In 1978, an adjacent landfill, designated as a "Superfund" site, contaminated Flemington's drinking water and caused authorities to construct new wells.

187. Flemington's new wells are located near SUTTON's coal ash basins. They are located down-gradient from the SUTTON coal ash basins, meaning groundwater ultimately flows from the coal ash basins toward the Flemington wells.

188. DUKE ENERGY PROGRESS/Progress Energy Carolinas has monitored groundwater around SUTTON since 1990. Monitoring particularly focused on a boron plume emanating from the coal ash ponds.

189. From at least 2010 through 2013, the groundwater monitoring wells at SUTTON reported unnaturally elevated levels of some constituents, including manganese, boron, sulfate, and total dissolved solids.

190. Flemington's public utility also tested its water quality. Those tests showed exceedances of barium, manganese, sodium, and sulfate in 2013.

191. In June and July 2013, Flemington's public utility concluded that boron from SUTTON's ash ponds was entering its water supply. Tests of water from various wells at and near SUTTON from that period showed elevated levels of boron, iron, manganese, thallium, selenium, cadmium, and total dissolved solids.

192. In October 2013, DUKE ENERGY PROGRESS entered into an agreement with the Cape Fear Public Utility Authority to share costs for extending a municipal water line to the Flemington community.

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SO AGREED, THIS 20<sup>th</sup> DAY OF FEBRUARY, 2015.

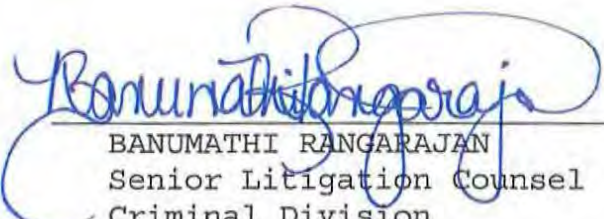
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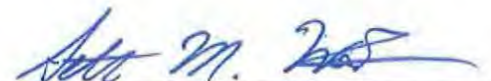
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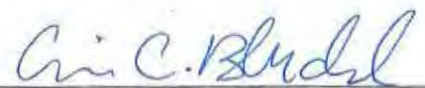
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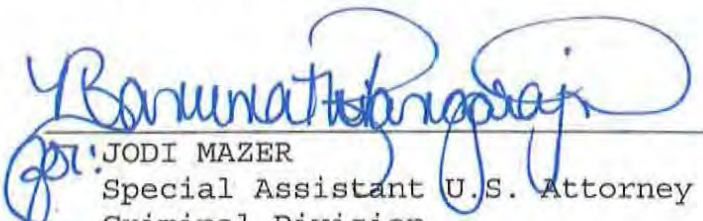
  
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SO AGREED, this the 20 day of February, 2015.

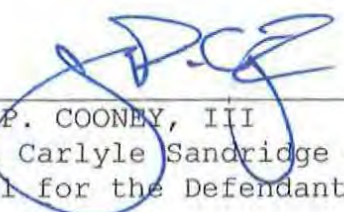
DUKE ENERGY CAROLINAS, LLC.

Defendant

BY: 

JULIA S. JANSON  
Executive Vice-President,  
Chief Legal Officer, and  
Corporate Secretary

Authorized Designated Official for  
Duke Energy Carolinas, LLC

  
JAMES P. COONEY, III  
Womble Carlyle Sandridge & Rice LLP  
Counsel for the Defendant

SO AGREED, this the 20 day of February, 2015.

DUKE ENERGY PROGRESS, INC.

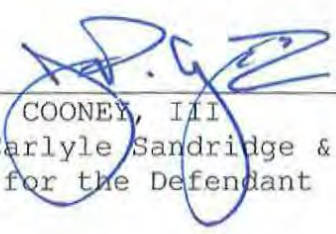
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BY: 

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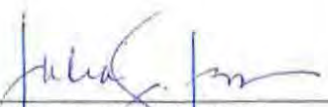
  
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DUKE ENERGY BUSINESS SERVICES, INC.  
Defendant

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JULIA S. JANSON  
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